

Policy, Planning, and Research

WORKING PAPERS

Office of the Vice President

Development Economics
The World Bank
September 1989
WPS 280

Adjustment Policies in East Asia

Bela Balassa

Policy differences explain why East Asia's newly industrializing economies outperformed Latin America's in per capita income. But it is inappropriate for Korea and Taiwan to run current account surpluses when they can get higher returns from domestic investment than from foreign securities or gold.

Policy, Planning, and Research

WORKING PAPERS

Office of the Vice President

Having passed through the first stage of import substitution, which involved the replacement of the imports of nondurable consumer goods and their inputs by domestic production, two East Asian newly industrialized economies — Korea and Taiwan — embarked on an outward oriented development strategy that gave a boost to manufactured exports and economic growth. This contrasts with the policies applied by three Latin American newly industrializing countries, Argentina, Brazil, and Mexico, which passed to the second stage of import substitution that concerned consumer and producer durables and intermediate products and reformed their policies only after the adverse effects of these policies became apparent.

The two East Asian economies continued with outward-oriented policies during the period

of the two oil crises and limited reliance on external borrowing. In turn, the three Latin American economies again turned inward and placed considerable reliance on foreign loans. These policy differences by and large continued after the debt crisis, except that the three Latin American economies had to apply deflationary measures in view of the unavailability of external capital.

Differences in the policies applied explain the different economic performance of the East Asian and the Latin American economies, with the former much surpassing the latter in per capita incomes. At the same time, it is inappropriate for Korea and Taiwan to run current account surpluses when they can obtain higher returns on domestically invested capital than on capital invested in foreign securities and gold.

This paper is a product of the Office of the Vice President, Development Economics. Copies are available free from the World Bank, 1818 H Street NW, Washington DC 20433. Please contact Norma Campbell, room S9-047, extension 33769 (26 pages with tables).

The PPR Working Paper Series disseminates the findings of work under way in the Bank's Policy, Planning, and Research Complex. An objective of the series is to get these findings out quickly, even if presentations are less than fully polished. The findings, interpretations, and conclusions in these papers do not necessarily represent official policy of the Bank.

ADJUSTMENT POLICIES IN EAST ASIA

Bela Balassa *

Table of Contents

	Page No.
I. Economic Policies, 1963-1973	1
II. Policy Responses to External Shocks, 1974-1981	5
III. Policies in the Period Following the Debt Crisis, 1982-1988	10
IV. Current Account surpluses and Policies for the Future . . .	11
V. Conclusions	18

* The author is Professor of Political Economy at the Johns Hopkins University and Consultant to the World Bank. He presented this paper at the December 1988 meetings of the American Economic Association. The author is indebted to Shigeru Akiyama for research assistance.

ADJUSTMENT POLICIES IN EAST ASIA

Bela Balassa

This paper will examine the adjustment policies applied by two East Asian newly-industrializing economies, Korea and Taiwan (China), in the period following the quadrupling of oil prices in 1973. As an introduction to the discussion, the policy performance of the two East Asian economies prior to 1973 will be analyzed, comparing their performance to that of three Latin American newly-industrializing economies, Argentina, Brazil, and Mexico. This will be followed by an examination of adjustment policies in the periods of the first and the second oil shocks and a discussion of the policies applied in the subsequent period, when shifts from current account deficits to current account surpluses occurred in the two East Asian economies. Finally, desirable policies for the future will be considered.

I. Economic Policies, 1963-1973

Apart from the city state of Hong Kong, all developing countries protected their incipient manufacturing industries producing nondurable consumer goods and their inputs. This is customarily called the "easy" stage of import substitution as developing countries possess certain advantages in the production of the commodities in question. Nondurable consumer goods, such as clothing, shoes, and furniture, and their inputs, such as textile fabrics, leather, and wood, are relatively labor intensive; the efficient scale of output is low, and costs do not rise substantially at lower output levels; production does not involve the use of sophisticated technology; and a network of suppliers of parts, components, and accessories is not required for efficient operations.

In the course of first-stage import substitution, domestic production will rise more rapidly than domestic consumption, since it not only provides for increases in consumption but also replaces imports. Once the process of import substitution in nondurable consumer goods and their inputs has been completed, however, the growth rate of output will decline to that of domestic consumption. Developing economies that wish to maintain high rates of industrial growth, then, face a choice between turning to the exportation of manufactured goods or embarking on the second stage of import substitution.

In Korea and Taiwan, the choice was made for outward-oriented development policies that gave a boost to the exports of manufactured goods. The policies applied involved providing similar incentives to sales in domestic and in export markets, thereby avoiding a bias against exports.

In both Korea and Taiwan, a free-trade regime was applied to exports. Exporters were free to choose between domestic and imported inputs; they were exempted from indirect taxes on their output and inputs; and they paid no duty on imported inputs. The same privileges were extended to the producers of domestic inputs used in export production.

The application of these rules provided equal treatment to all exports. And while some additional export incentives were granted, they did not introduce much differentiation among individual export commodities. At the same time, these incentives offset, on the average, import protection in the manufacturing sector, thus ensuring that exports and import substitution received similar incentives. Furthermore, there was little discrimination against primary exports and primary activities in general.

In turn, the three Latin American newly-industrializing economies, Argentina, Brazil, and Mexico, moved to the second stage of import

substitution after the completion of its first, easy, stage. Second stage import substitution involves the replacement of imports of intermediate goods and producer and consumer durables by domestic production.

Intermediate goods, such as petrochemicals and steel, tend to be highly capital-intensive. They are also subject to important economies of scale and costs rise rapidly at lower output levels. Moreover, the margin of processing is relatively small, and organizational and technical inefficiencies may contribute to high processing costs.

Producer durables, such as machinery, and consumer durables, such as automobiles, are also subject to economies of scale. But in these industries economies of scale relate not so much to plant size as to horizontal and vertical specialization, entailing reductions in product variety in particular plants and the manufacture of parts, components, and accessories on an efficient scale in separate plants.

At the same time, the production of parts, components, and accessories has to be done to precision for consumer durables and, especially, for machinery. This, in turn, requires the availability of skilled and technical labor and, to a greater or lesser extent, the application of sophisticated technology. There is also need for a network of suppliers of parts, components, and accessories for efficient operations.

Given the relative scarcity of physical and human capital in developing countries that have completed the first stage of import substitution, they are at a disadvantage in the manufacture of highly physical capital-intensive intermediate goods and skill-intensive producer and consumer durables. By limiting the scope of exploitation of economies of scale, the relatively small size of their national markets further contributes to high

domestic costs in these countries. Correspondingly, the establishment of these industries requires high protection.

The resulting discrimination in favor of import substitution and against exports did not permit the development of manufactured exports in countries engaging in second-stage import substitution. There were also adverse developments in primary exports that suffered the effects of high rates of industrial protection both through higher input costs and the appreciation of the exchange rate.

Import substitution did not compensate for poor export performance as the need for industrial materials and machinery limited net import savings. Correspondingly, countries engaged in second-stage import substitution suffered foreign exchange shortages, which adversely affected their economic growth. The decline in investment efficiency in highly protected industries had similar effects. The resulting deterioration in growth performance led to reforms in the incentive system of the three Latin American newly industrializing economies in the mid-1960s.

The reforms involved granting export subsidies to nontraditional exports. Exporters were not given, however, a free choice between domestic and imported inputs. Rather, in order to safeguard existing industries, exporters were required to use domestic inputs produced under high protection, for which export subsidies provided only partial compensation. Correspondingly, there continued to be a bias in favor of import substitution and against exports, albeit at a reduced rate. The extent of discrimination was especially pronounced against traditional primary exports, which did not receive export subsidies and, in some instances, continued to be subject to export taxes.

Differences in the policies applied in the East Asian and Latin American newly-industrializing economies are apparent in their export and growth performance. As shown in Table 1, manufactured exports grew rapidly between 1963 and 1973 in Korea and Taiwan while smaller increases are shown in the three Latin American countries (In interpreting the figures, it should be noted that the Taiwanese results for 1963 were influenced by the reforms introduced in 1960 whereas Korea's reform dates from 1964).

The important role exports played in the growth process in the East Asian newly-industrializing economies is indicated by the substantial rise in their export-GDP ratios between 1963 and 1973 (Table 2). By contrast, this ratio declined in Argentina and Mexico. And while the ratio increased in Brazil, where export subsidies were higher than in the other two Latin American NICs and extended also to nontraditional primary exports, the increases were much smaller than in East Asia.

Correspondingly, considerable differences are shown in the growth performance of the East Asian and Latin American newly-industrializing economies (Table 3). Thus, per capita incomes doubled in Korea and Taiwan between 1963 and 1973 (Table 4). As a result, Taiwan surpassed Brazil in terms of per capita incomes, and both East Asian newly-industrializing economies considerably reduced the economic distance vis-a-vis Argentina and Mexico.

II. Policy Responses to External Shocks, 1974-1981

It was suggested that while outward orientation gave superior results than inward orientation under favorable world economic conditions prior to 1973, the two oil crises and the ensuing recessions bore heavily on outward-oriented economies. This is because outward oriented economies had much

higher export and import ratios than inward oriented economies and the adverse effects of unfavorable world economic conditions were propagated through international trade.

In the following, this proposition will be subjected to scrutiny. This will be done by examining the balance-of-payments effects of external shocks and policy responses to these shocks. Estimates have been made for the 1974-78 and 1978-81 periods, utilizing the framework that is described in Balassa, 1981.

External shocks have been defined to include terms of trade effects, resulting largely from increases in oil prices, and export volume effects, associated with the slowdown of world trade in the ensuing recessions. In the second period, there were also interest rate effects, due to increases in interest rates in world financial markets.

Policy responses to external shocks took the form of additional net external financing, represented by increased borrowing compared with past trends; export promotion, reflected by increases in export market shares; import substitution, expressed by decreases in the income elasticity of import demand; and deflationary macroeconomic policies, entailing a decline in the growth of demand for imports.

The adverse balance-of-payments effects of external shocks were indeed much larger for the East Asian, than for the Latin American, newly-industrializing economies. As shown in Table 5, these effects equaled 10.5 percent of GDP in Korea and 7.2 percent in Taiwan, compared with 0.5 percent in Argentina, 3.3 percent for Brazil, and 1.2 percent in Mexico in the 1974-78 period. The low figures for Argentina reflect the fact that it does not

import petroleum; also, Mexico's petroleum imports were reduced by newly discovered oil.

In view of the small balance-of-payments effects of external shocks, limited interest attaches to policy responses to these shocks in Argentina. Thus, the following discussion will compare adjustment policies in Korea and Taiwan with those in Brazil and Mexico. In so doing, the time pattern of policy responses will also be considered. ^{1/}

The initial response of Korea and Taiwan to external shocks was to adopt deflationary policies so as to avoid excessive indebtedness. In fact, both East Asian economies reduced their reliance on foreign capital as indicated by negative net additional external financing reported in Table 5. At the same time, they maintained their outward-oriented stance. Moreover, both economies devalued their exchange rate so as to promote exports and import substitution.

Combining export promotion and import substitution in Table 5 under the heading "output-increasing policies" shows the success of the measures applied that more than offset the adverse balance-of-payments effects of external shocks. Korea's output performance was particularly favorable, turning the deflationary policies applied in the years immediately following the oil crisis into expansionary policies.

Output-increasing policies were also positive in Brazil, although to a much lesser extent than in Korea and Taiwan. At the same time, Brazil accelerated its borrowing abroad and the ratio of export promotion to import substitution was lower than in the two East Asian newly-industrializing

^{1/} Annual estimates are shown in Balassa, 1981.

economies. Correspondingly, its external debt-export and debt service-export ratios increased to a considerable extent while declines or modest increases were shown in Korea and Taiwan (Table 6).

External debt-export and debt service-export ratios increased even more in Mexico, where net additional external financing exceeded the balance-of-payments effects of external shocks. At the same time, Mexico lost export market shares and experienced less import substitution than the other newly-industrializing economies under consideration.

These results reflect the increased emphasis on import substitution in the Latin American newly-industrializing economies that was not the case in East Asia. In fact, Korea and Taiwan liberalized their trade during the period under consideration and the observed import substitution was the result of the exchange rate policy applied. It may be added, however, that Brazil continued with the subsidization of exports after 1973.

In the 1978-81 period, the East Asian newly industrializing economies again suffered much larger external shocks than the Latin American economies. The ratio of the adverse balance-of-payments effects of external shocks to GNP was 9.4 percent in Korea, 13.1 percent in Taiwan, 1.2 percent in Argentina, and 2.5 percent in Brazil. At the same time, Mexico benefited from external shocks through increases in oil prices on its newly found reserves that permitted substantial exports.

Taiwan continued to reduce reliance on foreign capital while maintaining its output-increasing policies that more than offset the adverse balance-of-payments effects of external shocks. This was not the case in Korea that failed to devalue its currency for several years despite rapid

domestic inflation. At the same time, Korea applied deflationary policies, thereby limiting reliance on foreign capital (Balassa, 1985).

In Latin America, Argentina and Mexico greatly increased their reliance on external capital during the 1978-81 period. This was not the case in Brazil, leading to a reduction in its external debt-export ratio. This ratio rose substantially in Argentina while declining in Mexico whose oil exports grew very rapidly.

Argentina lost export market shares and experienced negative import substitution during the period under consideration as it failed to devalue to compensate for domestic inflation. The same outcome was observed in Mexico, excluding oil exports that show up as a gain in export market shares. Finally, Brazil with its flexible exchange rate policy had modest gains in export market shares and import substitution.

Combining the 1974-78 and 1978-81 periods, we find that Korea and Taiwan benefited from continued outward orientation and, except for Korea in the latter period, from a flexible exchange rate policy. These policies led to increases in the ratio of exports to GNP while declines were experienced in Argentina and Brazil and, excluding oil, in Mexico (Table 2). And, per capita exports of manufactured goods also increased to a greater extent in the East Asian, than in the Latin American, newly-industrializing economies (Table 1).

The adjustment policies applied permitted Korea and Taiwan to reach rapid rates of economic growth, exceeding the growth rates in Brazil and Mexico and, in particular, Argentina by a considerable margin (Table 3). Correspondingly, Korea also surpassed Brazil in terms of per capita incomes and income differences of the two East Asian economies vis-a-vis Argentina and Mexico declined (Table 4).

Thus, despite the substantial external shocks they suffered, Korea and Taiwan showed superior economic performance compared with the Latin American newly-industrializing economies. While external shocks were larger under outward orientation, the continuation of this policy permitted Korea and Taiwan to more than compensate for the adverse effects of external shocks, reaching higher economic growth rates in the process.

III. Policies in the Period Following the Debt Crisis, 1982-1988

Rapid increases in exports, together with limited reliance on foreign capital, permitted Korea and, in particular, Taiwan, to maintain low external debt-export ratios in the 1973-81 period. And while their debt service-export ratios rose, this is explained by increases in world interest rates. External debt-export ratios were considerably higher in the Latin American newly-industrializing economies, ranging between 249 (Argentina) and 278 (Brazil), compared with 109 in Korea and 24 in Taiwan at the end of the period (Table 6).

In the following six years, external debt-export ratios increased further in the Latin American newly-industrializing economies while declining in Korea and Taiwan. These results largely reflect the fact that the Latin American NICs experienced little change in manufactured exports per head and a fall in their export-GDP ratio. Both of these ratios increased in Korea and Taiwan (Tables 1 and 2).

With slow export growth and the application of deflationary policies in response to the debt crisis, per capita incomes declined in Argentina and Mexico between 1981 and 1987 and increased only slightly in Brazil. By contrast, per capita incomes rose to a substantial extent in Korea and Taiwan. Thus, while the two East Asian economies had lower per capita incomes

than the Latin American NICs in 1963, the situation was reversed by 1987 (Table 4).

Limiting attention to the two East Asian economies, we observe an important change in their resource flow patterns. Following earlier deficits, from 1981 onwards Taiwan and from 1985 onwards Korea had a current account surplus, i.e. they experienced an outflow rather than an inflow of savings. In the case of Taiwan, this was accompanied by increases in the domestic saving ratio and declines in the investment ratio. In Korea, it occurred as the domestic saving ratio increased, with little change in the domestic investment ratio (Table 7).

By 1987, the current account surplus reached \$9.9 billion, 8.5 percent of the gross domestic product, in Korea. Preliminary estimates indicate that the surplus may attain \$14 billion in 1988. In turn, Taiwan's current account surplus was \$18.1 billion, 19.2 percent of GDP, in 1987. The Taiwanese surplus declined in 1988 but estimates are not yet available.

The remainder of this paper will consider the question if a continued outflow of savings is desirable in the case of Korea and Taiwan. Furthermore, policy recommendations will be made for the future.

IV. Current Account Surpluses and Policies for the Future

Is it desirable for developing economies, such as Korea and Taiwan, to run current account surpluses? To answer this question, the first issue concerns the rates of return that are obtainable in foreign and in domestic investment.

Korea holds its foreign assets largely in the form of U.S. securities, in most part short-term. Taiwan's holdings are approximately nine-tenths in U.S. securities and one-tenth in gold. U.S. short-term

securities earn 8-9 percent a year or 4 percent adjusted for U.S. inflation. There are no earnings on gold while its price may fluctuate over time.

Fry (1988) estimated two measures of the rate of return to capital in Taiwan. These are the net productivity of capital, defined as income to capital divided by the capital stock, and the private after-tax rate of return on private capital. For 1987, the former was estimated at 18.0 percent and the latter at 18.6 percent.

Comparable estimates for Korea are not available. However, judging from the fact that incremental capital-output ratios in the two economies differ little (for the 1981-86 period, these are estimated at 3.7 for Korea and 3.4 for Taiwan), and they are of similar levels of technological development, one cannot expect large differences in rates of return to capital.

It appears, then, that Korea and Taiwan suffer substantial economic losses by investing abroad rather than domestically. With the current account surplus equal to about 11 percent of Korea's GDP and 18 percent of Taiwan's GDP and a rate of return differential of 14 percent for Treasury securities and 18 percent for gold, these losses can be estimated at 1.5 percent and 2.6 percent of GDP, respectively.

Nor do Korea and Taiwan need to accumulate reserves for emergencies. Korea had foreign exchange reserves and gold of \$15.9 billion in June 1989 and Taiwan \$81.3 billion in April 1989, amounting to 4 and 20 months of imports, respectively. This compares to 3 months of imports that are customarily regarded as adequate reserves.

At the same time, Taiwan has a negligible foreign external debt while Korea's debt may amount to \$26 billion at the end of 1988. The repayment of

this debt with interest charges of about 11 percent (6-7 percent in real terms) cannot be considered desirable, since the rate of return on domestic investment much exceeds the interest rate on the debt. At the same time, as we have seen, the ratio of the external debt to exports has been declining over time and will fall further with rising exports in the future.

We have considered so far the choice between domestic and foreign investment. Further questions arise as to the choice between domestic consumption and the flow of domestic savings abroad. In view of the expected rapid increases in incomes as new investment embodies modern technology, it will not be appropriate to limit the growth of domestic consumption by measures that favor the outflow of capital.

Among possible distorting measures affecting the current account balance, the exchange rate needs first to be considered. The nominal exchange rate and the real effective (trade-weighted) exchange rate, derived by adjusting the ratio of nominal exchange rate for changes in relative prices at home and abroad has been calculated for Korea, Taiwan, Japan, and the United States. The base period is 1980-82; the data extend until the first quarter of 1989.

During this period, the Korean won depreciated by 0.6 percent vis-a-vis the U.S. dollar while the New Taiwan \$ appreciated by 25.9 percent and the Japanese yen by 44.7 percent against the U.S. currency. In turn, the real effective exchange rate depreciated by 11.9 percent in Korea, 0.2 percent in Taiwan, and 10.5 percent in the United States, whereas an appreciation of 27.1 percent is shown for Japan.

It appears, then, that changes in real effective exchange rates vary to a considerable extent among the three economies that accumulated large

current account surpluses (including Japan). Thus, the data provide prima facie evidence on the need for an appreciation of the exchange rate in Taiwan and in Korea.

Another way to approach the issue is to consider changes in equilibrium real effective exchange rates. As first suggested by Balassa (1964), the equilibrium real exchange rate will change as a result of differences in productivity growth between the traded and the nontraded goods sectors. While traded goods prices are equalized internationally, this is not the case for the prices of nontraded goods. Rather, the larger are differences in productivity growth between traded and nontraded goods sectors, the more will the prices of nontraded goods rise as domestic wages increase. As a result, the equilibrium real effective exchange rate will appreciate in countries with rapid increases of productivity in traded vs. nontraded goods sectors as against countries with lower rates of relative productivity increases in the traded goods sectors.

Hsieh (1982) provided confirmation of this view for Germany and Japan, and Marston (1986) for the United States and Japan. Comparable estimates could not be made in the present case, owing to the lack of information on sectoral productivity changes. Nevertheless, some conclusions can be derived from data on overall productivity changes between 1980-82 and 1988.

We have estimated that labor productivity on the national economy level increased by 54.8 percent in Korea, 42.0 percent in Taiwan, 23.4 percent

in Japan, and 8.3 percent in the United States during this period. ^{1/} Following Balassa (1964), we assume that intercountry differences of productivity growth in nontraded goods sectors are smaller than productivity differences in traded good sectors. It would appear, then, that the productivity gap between traded and nontraded goods sectors was the largest in Korea, followed by Taiwan, Japan, and the United States.

Data on productivity growth, then, confirm the conclusion that the equilibrium real effective exchange rate appreciated to a considerable extent in Korea and Taiwan. Since the actual exchange rate did not follow suit, there is need for a substantial appreciation in the currencies of the two economies.

The need for an appreciation is mitigated, however, to the extent that Korea and Taiwan reduce their import protection. This is also in the interest of the two economies since protection interferes with the efficiency of resource allocation.

It has been reported that, following the trade liberalization measures undertaken in recent years, approximately 5 percent of Korean and Taiwanese imports remain subject to quantitative import restrictions. Such figures are misleading, however, since products which are imported in small quantities are given small weight and products which are not imported do not appear in the calculation at all.

In this connection, reference may be made to the share of the imports of motor vehicles (SITC category 78) and of miscellaneous manufactured goods, mainly consumer goods (SITC class 8) in total imports. In 1987, motor vehicle

^{1/} IMF, International Financial Statistics and national data.

imports accounted for 17.6 percent of total imports in the United States, 8.8 percent in France, 7.0 percent in Germany, and 9.4 percent in the United Kingdom; the corresponding ratios were only 2.0 percent in Korea and 3.6 percent in Taiwan. In turn, the share of miscellaneous manufactured goods in total imports were 16.1 percent in the United States, 13.8 percent in France, 15.0 percent in Germany, 13.7 percent in the United Kingdom, 5.3 percent in Korea, and 4.1 percent in Taiwan. ^{1/}

It appears, then, that there are considerable possibilities for increasing the imports of motor vehicles and miscellaneous manufactured goods in both Korea and Taiwan. Further possibilities exist in agriculture where import prohibitions and limited import quotas have been used in the two economies. Finally, the imports of services, such as insurance, motion pictures, and telecommunications, should be liberalized.

In order to limit the extent of the appreciation of their currencies, which also disfavor exports, and to improve the efficiency of resource allocation, it would be desirable for Korea and Taiwan to abolish all quantitative import restrictions. This could be done speedily for manufactured goods while it could be implemented over time for agricultural products.

The same objectives would be served by lowering tariffs. Much has been done in this regard in both Korea and Taiwan in recent years but tariffs remain high for automobiles and various foodstuffs. An appropriate objective would be to lower tariffs to rates observed in the industrial countries, to an average of about 5 percent. At the same time, the dispersion of tariff rates

^{1/} United Nations trade tapes.

about this average should be reduced.

Lowering import protection will permit Korea and Taiwan to forego the use of export incentives which are now employed to avoid an anti-export bias in the incentive system. This will, then, represent a further step towards a free trade situation.

The question arises how will the proposed measures, including an appreciation of the exchange rate, lowering import protection, and reducing export incentives, affect the savings-investment balance. These measures operate in part through reductions in savings that result as profits in traded goods industries and rents in agriculture decline,^{1/} and in part through increases in investment as resource reallocation according to comparative advantage leads to higher investment.

Another source of distortions in Korea and Taiwan is the restrictions imposed on the financial system. These restrictions interfere with investment activity as they do not ensure that all profitable investment projects are financed. The liberalization of the financial system, then, would contribute to increased investment.

A variety of measures may be taken to liberalize the financial system in Korea and Taiwan. They include freeing interest rates; reducing government intervention in the operation of banks and, in the case of Taiwan, privatizing state-owned banks; allowing for the entry of new banks and for increases in the number of branches of existing banks; and admitting an increased number of foreign banks. These measures would need to be accompanied by increasing the supervision of the banking system so as to avoid irregularities.

^{1/} On this point, see also Balassa and Williamson, 1987, p. 27.

There would further be need to liberalize money markets and to develop capital markets. This would require enlarging the scope of available monetary instruments and increasing the number of firms that operate in money and capital markets. At the same time, existing regulations on the operation of these markets should be strengthened.

Apart from reducing existing distortions, investment in Korea and Taiwan could be increased directly by improvements in infrastructure. In this connection, it may be noted that the 14 major infrastructure projects in Taiwan are behind schedule. In Korea, too, there are unmet infrastructural needs, in particular in roads, where public investment could contribute to private investment.

Finally, the effects of the appreciation of the currency would be enhanced by expansionary measures. Nor should one fear the inflationary effects of such measures since the appreciation of the currency will have deflationary consequences.

Conclusions

This paper has examined the adjustment policies followed in two East Asian newly-industrializing economies: Korea and Taiwan. As an introduction to the discussion, the economic policies applied by these two economies in the 1963-73 period were reviewed. In so doing, comparisons were made with three Latin American newly-industrializing economies: Argentina, Brazil, and Mexico.

It has been shown that while the East Asian NICs adopted outward-oriented policies, providing similar incentives to exports and import substitution, the Latin American NICs applied inward-oriented policies, with subsequent reforms reducing but not eliminating the bias of the incentive

system against exports. The effects of differences in policies are apparent in economic performance as the East Asian NICs reached much higher export and GNP growth rates than the Latin American NICs.

While the outward oriented East Asian NICs suffered considerably larger external shocks than the Latin American NICs in the 1973-78 period, they succeeded in overcoming these shocks and attained higher economic growth rates than the latter group of national economies. The policies applied involved adopting deflationary measures initially so as to avoid excessive indebtedness as well as continued outward orientation, with reliance placed on the exchange rate to pursue output-increasing policies of export promotion and import substitution.

Responses to the second oil shock were similar. Correspondingly, export-GNP ratios increased in the East Asian NICs while declining in the Latin American NICs. Also, economic growth rates were considerably higher in the former than in the latter group. At the same time, external debt ratios remained low in Korea and Taiwan but rose to a considerable extent in Argentina, Brazil, and Mexico.

With the onslaught of the debt crisis, Latin American economies had to apply deflationary measures and experienced slow export growth, resulting in poor economic performance. By contrast, exports and per capita incomes rose rapidly in Korea and Taiwan. Also, the two East Asian economies shifted from an inflow to an outflow of savings.

The paper raises the question if it is desirable for developing economies, such as Korea and Taiwan, to run a current account surplus. It answers this question in the negative, noting that both economies can obtain much higher returns on domestically invested capital than on capital invested

abroad and, in view of expected rapid increases in incomes, it is not appropriate to limit the growth of domestic consumption.

The paper suggests remedying the policy distortions that tend to contribute to the outflow of capital. Recommendations have been made for the appreciation of the exchange rate, reductions in import protection, and the elimination of export incentives. It has further been proposed to liberalize financial markets.

At the same time, investments in Korea and Taiwan could be increased by improvements in infrastructure. Finally, the appreciation of the exchange rate would need to be accompanied by expansionary policies that would contribute to increased consumption.

REFERENCES

- Balassa, Bela, "The Purchasing Power Parity Doctrine: A Reappraisal," Journal of Political Economy 72(6), December 1964, pp. 1258-67.
- Balassa, Bela, "The Newly-Industrializing Developing Countries After the Oil Crisis," Weltwirtschaftliches Archiv, Band 117, Heft 1, 1981, pp. 142-94. Reprinted as Essay 2 in Bela Balassa, The Newly Industrializing Countries in the World Economy, New York, Pergamon Press, 1981, pp. 29-81.
- Balassa, Bela, "Adjusting to External Shocks: The Newly-Industrializing Developing Economies in 1974-76 and 1979-81," Weltwirtschaftliches Archiv Band 121, Heft 1, 1985, pp. 116-41.
- Balassa, Bela and John Williamson, Adjusting to Success: Balance of Payments Policy in the East Asian NICs, Policy Analyses in International Economics, No. 17, Washington, D.C., Institute for International Economics, June 1987.
- Fry, Maxwell J., "Should Taiwan Reduce Its Current Account Surplus?" University of California, Irvine, November 1988 (mimeo).
- Hsieh, David A, "The Determination of the Real Exchange Rate: The Productivity Approach," Journal of International Economics, 12(3/4), May 1987, pp. 355-62.
- Marston, Richard C., "Real Exchange Rates and Productivity Growth in the United States and Japan," National Bureau of Economic Research Working Paper No. 1922, May 1986.

Table 1

Per Capita Exports of Manufactured Goods
in Selected Newly-Industrializing Economies
(US\$)

	1963	1973	1981	1987
Korea	1	79	493	1035
Taiwan	11	238	1111	2395
Argentina	4	29	63	58*
Brazil	1	12	73	87
Mexico	4	20	78	90*

Sources: United Nations, COMTRADE data base; World Bank data base.

Note: * 1986.

Table 2

Export-GDP Ratios in Selected Newly-Industrializing Economies
(percent)

	1963	1973	1981	1987
Korea	2.3	24.2	30.8	35.9
Taiwan	15.3	42.1	47.6	49.9
Argentina	10.1	8.4	7.3	2.3*
Brazil	5.7	12.8	8.5	3.8
Mexico	6.2	4.1	8.1	5.6*

Sources: United Nations, COMTRADE data base; World Bank data base.

Note: * 1986

Table 3

GDP Growth Rates in Selected Newly-Industrializing Economies
(percent)

	1963-73	1973-81	1981-87	1963-87
Korea	9.3	7.8	8.9	8.7
Taiwan	11.1	8.0	7.6	9.2
Argentina	5.0	1.2	0.9	2.7
Brazil	8.2	5.7	3.8	6.3
Mexico	7.4	6.6	-1.0	5.2

Source: World Bank data base.

Table 4

Per Capita Incomes in Selected Newly-Industrializing Economies
(U.S. dollars)

	<u>At Purchasing Power Parities</u> (1975 prices)				<u>At Exchange Rates</u> (1987 prices)
	1963	1973	1981	1987	1987
Korea	690	1356	2122	3252	2883
Taiwan	826	1691	2631	3755	4804
Argentina	2036	3045	2944	2834	2539*
Brazil	983	1624	2034	2235	2305
Mexico	1499	2170	2680	2338	1503

Sources: 1963 and 1973: R. Summers and A. Heston, "Improved International Comparisons of Real Product and Its Composition" Review of Income and Wealth 30:2 June 1984), pp. 207-60; 1981 and 1987: World Bank data base.

Note: * 1986

Table 5

Balance-of-Payments Effects of External Shocks
and of Policy Responses to External Shocks,
in Selected Newly-Industrializing Economies

<u>External Shocks</u>		<u>Policy Responses to External Shocks</u>			
<u>(percent of GDP)</u>		<u>Additional Net</u>	<u>Export</u>	<u>Import</u>	<u>Deflationary</u>
		<u>External Financing</u>	<u>Promotion</u>	<u>Substitution</u>	<u>Policies</u>
<u>(percent of external shocks)</u>					
<u>1974-1978</u>					
Korea	10.5	-88	90	128	-30
Taiwan	7.2	-92	14	96	82
Argentina	0.5	-168	-13	146	136
Brazil	3.3	30	15	66	-11
Mexico	1.2	123	-70	33	14
<u>1978-1981</u>					
Korea	9.4	-18	-7	8	116
Taiwan	13.1	-40	27	91	22
Argentina	1.2	423	-109	-281	67
Brazil	2.5	-33	38	49	47
Mexico	-0.5	309	412	-756	-64

Source: World Bank data base.

Table 6

External Debt Ratios in Selected Newly-Industrializing Economies

	External Debt/Exports				Debt Service/Exports			
	1973	1978	1981	1987	1973	1978	1981	1987
Korea	123	100	103	67	21	16	19	15
Taiwan	22	27	24	na	6	7	8	na
Argentina	190	154	249	527	42	44	44	140
Brazil	209	368	278	282	15	66	66	87
Mexico	398	512	271	417	83	120	54	66

Sources: World Bank data base.

IMF, International Financial Statistics.

Table 7

Savings and Investment Ratios in Selected Newly-Industrializing Economies
(percentage of GDP)

	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987
<u>Korea</u>															
Domestic Savings	21.6	20.6	18.5	24.1	27.5	28.5	28.2	23.3	23.7	24.9	27.6	30.5	30.5	35.0	37.0
Foreign Savings	2.9	10.9	8.5	1.3	-0.2	3.0	7.3	7.8	5.4	2.6	1.3	0.3	-0.5	-5.8	-8.5
Domestic Investment	24.5	31.6	27.1	25.3	27.3	31.4	35.5	31.1	29.1	27.4	28.9	30.8	30.0	29.2	29.1
<u>Taiwan</u>															
Domestic Savings	34.6	31.7	27.3	33.0	33.3	35.1	34.5	33.1	32.4	30.4	32.0	33.0	32.3	37.1	38.8
Foreign Savings	-5.3	7.8	3.3	-2.2	-4.9	-6.5	-1.1	1.2	-2.1	-5.3	-9.0	-11.6	-14.5	-20.8	-19.2
Domestic Investment	29.3	39.5	30.6	30.8	28.4	28.5	33.3	34.3	30.3	25.2	23.0	21.5	17.9	16.2	19.6

Source: World Bank data base.

PPR Working Paper Series

	<u>Title</u>	<u>Author</u>	<u>Date</u>	<u>Contact for paper</u>
WPS257	Growth, External Debt , and the Real Exchange Rate in Mexico	Sweder van Wijnbergen	August 1989	M. Bailey 31854
WPS258	Understanding Voluntary Organizations: Guidelines for Donors	L. David Brown David C. Korten		Z. Kranzer 69485
WPS259	Dealing with Debt: The 1930s and the 1980s	Barry Eichengreen Richard Portes	August 1989	S. King-Watson 33730
WPS260	Growth, Debt, and Sovereign Risk in a Small, Open Economy	Jagdeep S. Bhandari Nadeem Ul Haque Stephen J. Turnovsky	August 1989	R. Luz 61588
WPS261	Inflation, External Debt and Financial Sector Reform: A Quantitative Approach to Consistent Fiscal Policy	Sweder van Wijnbergen Roberto Rocha Ritu Anand	August 1989	M. Bailey 31854
WPS262	Adjustment and External Shocks in Ireland	Dermot McAleese F. Desmond McCarthy	August 1989	M. Divino 33739
WPS263	How Has Instability in World Markets Affected Agricultural Export Producers in Developing Countries	Peter Hazell Mauricio Jaramillo Amy Williamson	August 1989	C. Spooner 30464
WPS264	Two Irrigation Systems in Colombia: Their Performance and Transfer of Management to Users' Associations	Herve Plusquellec		H. Plusquellec 30348
WPS265	The Influence of Imperfect Competition in International Markets: Some Empirical Evidence	Alexander Yeats		
WPS266	Policy Changes that Encourage Private Business Investment in Colombia	Mansoor Dailami	August 1989	M. Raggambi 61696
WPS267	Issues in Income Tax Reform in Developing Countries	Cheryl W. Gray		
WPS268	Shortcomings in the Market for Developing Country Debt	John Wakeman-Linn	September 1989	S. King-Watson 33730
WPS269	Women in Development: Issues for Economic and Sector Analysis	Women in Development Division	August 1989	J. Lai 33753

PPR Working Paper Series

	<u>Title</u>	<u>Author</u>	<u>Date</u>	<u>Contact for paper</u>
WPS270	Fuelwood Stumpage: Financing Renewable Energy for the World's Other Half	Keith Openshaw Charles Feinstein	September 1989	J. Mullan 33250
WPS271	The Industrial Labor Market and Economic Performance in Senegal: A Study of Enterprise Ownership, Export Orientation, and Government Regulation	Katherine Terrell Jan Svejnar		
WPS272	Women's Changing Participation in the Labor Force: A World Perspective	T. Paul Schultz		
WPS273	FY88 Annual Sector Review: Population, Health and Nutrition	Population and Human Resources Department		
WPS274	The Demography of Zaire: Review of Trends in Mortality and Fertility	Miriam Schneidman		
WPS275	Revised Estimates and Projections of International Migration, 1980-2000	Fred Arnold	August 1989	S. Ainsworth 31091
WPS276	Improving Rural Wages in India	Shahidur R. Khandker	August 1989	B. Smith 35108
WPS277	The Effect of Formal Credit on Output and Employment in Rural India	Shahidur R. Khandker Hans P. Binswanger	August 1989	B. Smith 35108
WPS278	Inflation and the Company Tax Base Methods to Minimize Inflation-Induced Distortions	Anand Rajaram	September 1989	A. Bhalla 60359
WPS279	What Determines the Rate of Growth and Technological Change	Paul M. Romer		
WPS280	Adjustment Policies in East Asia	Bela Balassa	September 1989	N. Campbell 33769
WPS281	Tariff Policy and Taxation in Developing Countries	Bela Balassa	September 1989	N. Campbell 33769
WPS282	EMENA Manufactured Exports and EEC Trade Policy	Bela Balassa	September 1989	N. Campbell 33769
WPS283	Experiences of Financial Distress in Thailand	Tipsuda Sundaravej Prasarn Trairatvorakul		